5. A leptin receptor (OB-R) polypeptide which is selected from the group consisting of OB-Ra (SEQ ID NO:2), OB-Rb (SEQ ID NO:4), OB-Rc (SEQ ID NO:6), OB-Rd (SEQ ID NO:8), and OB-Re (SEQ ID NO:10), or allelic variants thereof.

6. A leptin receptor (OB-R) polypeptide which is selected from the group consisting of:

a) N-terminal corresponding to OB-Ra through Lys^{889} and C-terminal to a C-terminal selected from the group consisting of OB-Rb after Lys^{889} (SEQ ID NO:57), OB-Rc after Lys^{889} (SEQ ID NO:58), and OB-Rd after Lys^{889} (SEQ ID NO:59);

b) N-terminal corresponding to OB-Rb or OB-Rc through Lys^{889}, and C-terminal corresponding to OB-Ra after Lys^{889} (SEQ ID NO:60,61) or OB-Rd after Lys^{889} (SEQ ID NO:62,63);

c) N-terminal corresponding to OB-Rd through Lys^{889}, and C-terminal corresponding to OB-Ra after Lys^{889} (SEQ ID NO:64), OB-Rb after Lys^{889} (SEQ ID NO:65), or OB-Rc after Lys^{889} (SEQ ID NO:66);

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d) N-terminal corresponding to SEQ ID NO:55 from Pro^{664} to Lys^{889}, and C-terminal corresponding to OB-Ra after Lys^{889} (SEQ ID NO:67), OB-Rb after Lys^{889} (SEQ ID NO:68), OB-Rc after Lys^{889} (SEQ ID NO:69), or OB-Rd after Lys^{889} (SEQ ID NO:70);

e) N-terminal corresponding to SEQ ID NO:55 from Met^{733} to Lys^{889}, and C-terminal corresponding to OB-Ra after Lys^{889} (SEQ ID NO:71), OB-Rb after Lys^{889} (SEQ ID NO:72), OB-Rc after Lys^{889} (SEQ ID NO:73), or OB-Rd after Lys^{889} (SEQ ID NO:74);

f) N-terminal selected from the group consisting of OB-Ra, OB-Rb, OB-Rd, and OB-R from Pro^{664} to His^{796}, and OB-Re from His^{796} (SEQ ID NO:75, 76, 77, and 78);

g) N-terminal corresponding to SEQ ID NO:55 from Met^{733} to His^{796}, and OB-Re from His^{796} (SEQ ID NO:79); and

h) allelic variants of any of subparts a) through g).

7. A leptin receptor (OB-R) polypeptide wherein

a) the N-terminal sequence is selected from the group consisting of

i. amino acid residues 1-889 (SEQ ID NO:80);

ii. amino acid residues 23-889 (SEQ ID NO:81);

iii. amino acid residues 28-889 (SEQ ID NO:82);

iv. amino acid residues 133-889 (SEQ ID NO:83);

v. amino acid residues 733-889 (SEQ ID NO:84);

vi. amino acid residues 1-796 (SEQ ID NO:85);

vii. amino acid residues 23-796 (SEQ ID NO:86);

viii. amino acid residues 28-796 (SEQ ID NO:87);

ix. amino acid residues 133-796 (SEQ ID NO:88);

C1

x. amino acid residues 733-796 (SEQ ID NO:89); and

xi) allelic variants of any of subparts i) through x); and

b) the C-terminal sequence is selected from the group consisting of

i) SEQ ID NO:11;

ii) SEQ ID NO:12;

iii) SEQ ID NO:13;

iv) SEQ ID NO:14;

v) SEQ ID NO:15 after His^{796} (SEQ ID NO:90); and

vi) allelic variants of any of subparts i) through v);

wherein the numbering in subpart a) is based on the amino acid sequence of SEQ ID NO:55

9. The soluble leptin receptor of Claim 8 which is selected from the group consisting of

a) OB-Re (SEQ ID NO:10);

b) an N-terminal sequence which is selected from the group consisting of:

C2

i) OB-Ra (SEQ ID NO:2),

ii) OB-Rb (SEQ ID NO:4),

iii) OB-Rd (SEQ ID NO:8), and

iv) corresponding to SEQ ID NO:55 from Pro^{664}, through His^{796}, and a C-terminal sequence which is OB-Re from His^{796} (SEQ ID NO:91); and

v) allelic variants of any of subparts i) through iv);

c) an N-terminal sequence which is selected from the group consisting of

i) amino acid residues 1-796 (SEQ ID NO:85);

ii) amino acid residues 23-796 (SEQ ID NO:86);

C2

iii) amino acid residues 28-796 (SEQ ID NO:87);

iv) amino acid residues 133-796 (SEQ ID NO:88);

v) amino acid residues 733-796 (SEQ ID NO:89); and

vi) allelic variants of any of subparts i) through v); and

a C-terminal sequence which is SEQ ID NO:15;

wherein the numbering in subparts b) and c) is based on the amino acid sequence of SEQ ID NO:55.